

Application No. 10/607,791  
Amendment dated May 11, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

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**Listing of Claims:**

- 1                   1 (currently amended).     A cartridge system for an electrical test probe,  
2 said system comprising:
- 3                   (a)     a main probing head body;  
4                   (b)     electronics positioned within said main probing head body;  
5                   (c)     a minimally inductive electrical contact mechanism directly  
6                             electrically coupled to said electronics, ~~said electrical contact~~  
7                             ~~mechanism protruding from said main probing head body;~~  
8                   (d)     a probing tip cartridge interconnectable with said main probing  
9                             head body, said probing tip cartridge securable by a foot associated  
10                            with said probing tip cartridge extending into said main probing  
11                            head body;  
12                   (e)     a probing tip with a conductive surface, at least part of said  
13                             conductive surface being exposed;  
14                   (f)     said probing tip interconnectable with said probing tip cartridge;  
15                   (g)     said probing tip cartridge being a switchable and replaceable  
16                             probing tip cartridge;  
17                   (h)     said electrical contact mechanism contacting said conductive  
18                             surface when said probing tip cartridge is in mating relationship with  
19                             said main probing head body; and  
20                   (i)     a signal testing instrument functionally associatable with said  
21                             probing tip so that a signal through said probing tip may be  
22                             measured by said signal testing instrument;

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23 (j) wherein said cartridge system is suitable for high bandwidth  
24 applications.

1 2 (original). The system of claim 1, said electronics being selectively  
2 electrically coupled to said signal testing instrument via a cable.

1 3 (original). The system of claim 1, said probing tip cartridge being  
2 disposable.

1 4 (original). The system of claim 1, said probing tip being a socket for  
2 receiving other probing tips.

1 5 (original). The system of claim 1, said electrical contact mechanism  
2 being a signal spring contact.

1 6 (original). The system of claim 1, said electrical contact mechanism  
2 being a leaf spring.

1 7 (original). The system of claim 1, said probing tip cartridge being an  
2 integrated grabber cartridge.

1 8 (original). The system of claim 1, further comprising:

2 (a) said main probing head body having a set of gripping jaws; and

3 (b) said probing tip cartridge having gripping surfaces;

4 (c) wherein said gripping jaws grip said gripping surfaces.

1 9 (currently amended). The system of claim 1 wherein said ~~probing tip~~  
2 ~~cartridge is held in place by a foot extending into said main probing head body~~ electrical  
3 contact mechanism protruding from said main probing head body.

1 10 (original). The system of claim 1 wherein said probing tip cartridge is  
2 held in place by a rear boot gripping both said probing tip cartridge and said main  
3 probing head body.

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11 (currently amended). A method for using a cartridge system for an electrical test probe, said method comprising the steps of:

- (a) providing a main probing head body having electronics positioned therein and a minimally inductive electrical contact mechanism directly electrically coupled to said electronics;
- (b) providing a switchable and replaceable probing tip cartridge;
- (c) providing a probing tip with a conductive surface defined therein, at least part of said conductive surface being exposed, said probing tip interconnectable with said probing tip cartridge;
- (d) securing said probing tip cartridge in mating relationship with said main probing head body by extending a foot of said probing tip cartridge into said main probing head body protruding said electrical contact mechanism from said main probing head body;
- (e) bringing said probing tip cartridge into mating relationship with said main probing head body;
- (f) coupling electronically said electrical contact mechanism with said conductive surface;
- (g) securing said probing tip cartridge in mating relationship with said main probing head body;
- (h) providing a signal testing instrument;
- (i) associating functionally said probing tip with said signal testing instrument; and
- (j) testing a high bandwidth signal through said probing tip using said signal testing instrument.

12 (currently amended). The method of claim 11 wherein said step of securing further comprises the step of protruding said electrical contact mechanism from said main probing head body securing said probing tip cartridge in mating relationship with said main probing head body by extending a foot of said probing tip cartridge into said main probing head body.

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1                   13 (original). The method of claim 11 said step of securing further  
2 comprises the step of securing said probing tip cartridge in mating relationship with said  
3 main probing head body by gripping both said probing tip cartridge and said main  
4 probing head body with a rear boot.

1                   14 (original). The method of claim 11 further comprising the steps of:

- 2                   (a) releasing said probing tip cartridge from its mating relationship with  
3                   said main probing head body;  
4                   (b) removing said probing tip cartridge;  
5                   (c) providing a replacement probing tip cartridge having a probing tip  
6                   with a conductive surface defined therein, at least part of said  
7                   conductive surface being exposed;  
8                   (d) bringing said replacement probing tip cartridge into mating  
9                   relationship with said main probing head body;  
10                  (e) coupling electronically said electrical contact mechanism with said  
11                  conductive surface; and  
12                  (f) securing said replacement probing tip cartridge in mating  
13                  relationship with said main probing head body.

1                   15 (original). The method of claim 11 further comprising the step of  
2 gripping surfaces of said probing tip cartridge using a set of gripping jaws of said main  
3 probing head body.

1                   16 (currently amended). A cartridge system for an electrical test probe,  
2 said system comprising:

- 3                   (a) a main probing head body;  
4                   (b) electronics positioned within said main probing head body;  
5                   (c) a switchable and replaceable probing tip cartridge, said probing tip  
6                   cartridge being held in place by at least one foot extending from  
7                   said probing tip cartridge into said main probing head body;  
8                   (d) a probing tip interconnectable with said probing tip cartridge; and

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9 (e) a minimally inductive electrical contact mechanism for electrically  
10 coupling said electronics to said probing tip when said probing tip  
11 cartridge is in mating relationship with said main probing head  
12 body.

1 17 (original). The system of claim 16, said electrical contact mechanism  
2 protruding from said main probing head body.

1 18 (original). The system of claim 16, said electronics being selectively  
2 electrically coupled to a signal testing instrument via a cable.

1 19 (cancelled).

1 20 (original). A cartridge system for an electrical test probe, said system  
2 comprising:

3 (a) a main probing head body;

4 (b) electronics positioned within said main probing head body;

5 (c) a switchable and replaceable probing tip cartridge, said probing tip  
6 cartridge having at least one foot;

7 (d) a probing tip interconnectable with said probing tip cartridge;

8 (e) a minimally inductive electrical contact mechanism protruding from  
9 said main probing head body, said electrical contact mechanism for  
10 electrically coupling said electronics to said probing tip when said  
11 probing tip cartridge is in mating relationship with said main probing  
12 head body; and

13 (f) said probing tip cartridge being held in place by said at least one  
14 foot extending into said main probing head body.